

Office of Environmental Management – Grand Junction



Moab UMTRA Project
Universal Waste Management Plan

Revision 2

May 2018



U.S. Department
of Energy

Office of Environmental Management

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Review and Approval

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RAC Environmental Compliance Manager

May 3, 2018
Date

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RAC Project Manager

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Date

Revision History

Revision	Date	Reason for Revision
0	July 2010	Initial issue.
1	April 2013	Revision update includes new RAC contract number.
2	May 2018	Revision update includes new RAC contract number and revised universal waste rules for aerosols and antifreeze.

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1.0 Introduction

1.1 Regulatory Applicability

The Moab Uranium Mill Tailings Remedial Action (UMTRA) Project is comprised of three sites, two field operations in Moab and Crescent Junction, Utah, and one office setting in Grand Junction, Colorado, which are owned and/or operated by the U.S. Department of Energy (DOE). Universal waste at the two Utah sites is regulated by the U.S. Environmental Protection Agency (EPA) under Title 40 Code of Federal Regulations Part 273 (40 CFR 273), “Standards for Universal Waste Management,” and the Utah Department of Environmental Quality under Utah Administrative Code Administrative Rule 315-273 (UAC R315-273), “Standards for Universal Waste Management.”

The Grand Junction office is covered under EPA regulations as well as Colorado Department of Public Health and Environment under Colorado Hazardous Waste Regulations, 6 Colorado Code of Regulations 1007-3 Part 273 (6 CCR 1007-3 273), “Standards for Universal Waste Management.”

This Universal Waste Management Plan describes practices that will be used for management of universal waste. Universal waste is a category of widely generated hazardous waste that poses a relatively low risk to human health and/or the environment during accumulation, storage, and transport. While the majority of hazardous waste is generated by industry, universal waste is generated by nearly every type of business, as well as by private residences. Because of the low risks and widespread use associated with universal waste, the regulations pertaining to universal waste management are much less stringent than those for non-universal hazardous waste. Reduced management requirements will encourage universal waste-collection programs and keep this waste out of municipal waste streams.

1.2 Types and Definitions

Hazardous wastes handled as universal waste include:

- Spent batteries found in many common items, including electronic equipment, hand tools, mobile telephones, cameras, computers, and emergency backup lighting. The battery chemistry is what determines its regulatory status. Lead acid (automotive), nickel cadmium, silver, mercury, or lithium batteries are regulated as universal waste and will be recycled. Storage is provided in boxes at maintenance sheds or in the box provided at the Moab Environmental Compliance office.
- Mercury-containing devices, including thermostats, thermometers, manometers, barometers, relays, and switches, are managed as universal waste.
- Lighting wastes include lamps, bulbs, or tubes with small amounts of mercury and possibly cadmium, must be managed as universal waste. Lamps regulated as universal waste can be fluorescent, high-intensity discharge, neon, mercury vapor, high-pressure sodium, and metal halide lamps.
- Unused pesticides that have been recalled or for which use has been suspended are universal wastes.
- Aerosol cans become waste on the date they are discarded or no longer usable.
- Antifreeze (ethylene alcohol) become waste on the date they are discarded or no longer usable.

2.0 Requirements for Universal Waste Handlers

DOE and contractors will manage universal waste as a “small quantity handler,” which does not accumulate 5,000 kilograms (11,000 pounds) or more total universal wastes, calculated collectively, at any time. A small quantity handler of universal waste is not required to notify the Utah Division of Environmental Quality or Colorado Department of Public Health and Environment (depending on site location) of universal waste-handling activities.

Small quantity handlers are prohibited from disposing of universal waste and must ensure waste is recycled or delivered to a permitted facility. The small quantity handler facility is prohibited from diluting or treating universal wastes.

For storage, the small quantity handler of universal waste must label or mark universal waste or containers to identify the type of universal waste (e.g., “Universal Waste Batteries,” “Universal Waste – Lamps”).

Universal waste will be managed in a way that prevents a release of any component of the waste. Containers must remain closed, be structurally sound, be compatible with contents, and show no evidence of leakage, spillage, or damage that could cause leakage. If stored outside, containers must be covered to prevent precipitation from coming into contact with the waste.

2.1 Accumulation Time Limits

A small quantity handler of universal waste may accumulate universal waste for no longer than 1 year from the date the waste is generated, unless accumulation activity is solely for the purpose of accumulating quantities sufficient to facilitate proper recycling or disposal. If the time limit is greater than 1 year, the small quantity handler must prove its facility has a feasible recycling market.

The small quantity handler of universal waste who accumulates universal waste must be able to demonstrate the length of time the waste has been accumulated from the date it became a waste by:

- Placing universal waste in a container and marking or labeling the container with the earliest date that any universal waste became a waste.
- Marking or labeling each individual item of universal waste (e.g., each battery, lamp, thermostat) with the date it became a waste and placed in the storage container.
- Maintaining an on-site inventory system that identifies the date each universal waste became a waste.
- Placing the universal waste in a specific accumulation area and identifying the earliest date that any waste in the area became a waste.

3.0 Employee Training

A small quantity handler of universal waste must inform all employees of this plan who handle or have responsibility for maintaining universal waste. The information must describe proper handling and emergency procedures appropriate for the type or types of universal waste handled at the facility.

4.0 Off-site Shipments

A small quantity handler of universal waste is prohibited from sending or taking universal wastes to a place other than another universal waste handler or a destination facility for recycling or disposal. On the Moab UMTRA Project, [REDACTED]

4.1 Tracking Universal Waste Shipments

Although small quantity handlers of universal waste are not required to keep records of shipments of universal waste per UAC R315-16-2, "Standards for Small Quantity Handlers of Universal Waste," DOE best management practices require maintaining the following records: destination facility, quantity of each type of universal waste, and date of shipment. Mechanics and/or maintenance or responsible employees will provide the required records or manifest information to the Environmental Compliance staff for filing in the DOE records system.

5.0 Site-specific Guidelines for DOE Grand Junction, Colorado, Office

Whereas the Moab UMTRA Project sites in Moab and Crescent Junction follow universal waste regulations dictated by UAC, the Grand Junction DOE office follows universal waste regulations dictated by Colorado Code. Guidelines specific to the Grand Junction office will be managed as described below.

- Aerosol cans containing hazardous waste such as paint, brake cleaner, and solvents, or those that contain a hazardous waste propellant, are considered universal waste. The Grand Junction office's goals are to ensure all aerosol cans are fully consumed or used, have no residual product (less than 10 percent), and can be disposed as solid waste in normal trash. Manual or pump applicators (e.g., glass cleaner) are the preferred dispensing option. Aerosol cans have to be properly stored and labeled prior to proper disposal to commercial service vendors.
- Used electronic devices and components that fail the toxicity test for heavy metals, such as computers, monitors, color televisions, and circuit boards, are covered under the universal waste regulations and will be managed in the Grand Junction office from all three Moab UMTRA Project sites. Proper labeling of area or container includes, storage, accumulation time limit, shipment (Colorado and Utah do not require hazardous waste manifest system), and disposal are required.
- Mercury-containing devices (e.g., mercury thermostats, gauges, flow regulators, electronic switches, relays) and lamps are a building maintenance issue and will be managed by the building owner.
- Pesticides are building maintenance issues and will be managed by the building owner.
- The Grand Junction office's goal will be to maintain a classification as a "Conditionally Exempt Small Quantity Generator" (CESQG) that generates less than 100 kilograms or approximately 250 pounds of total hazardous waste per month and accumulates no more than 1,000 kilograms or 2,500 pounds at one time.

If the CESQG quantities listed above are maintained, waste may be managed as conditionally exempt waste (not universal waste), which has reduced management requirements. Unlike small and large quantity generators, CESQGs are not required to notify the state in which their waste activity occurs or to obtain an EPA identification number. Also, there is no accumulation time limit (if quantities stored do not exceed limits), and there is no hazardous waste manifest required for transportation. If there are any questions, contact the Environmental Compliance staff.

6.0 References

6 CCR 1007-3 273 (Colorado Code of Regulations), “Standards for Universal Waste Management.”
40 CFR 273 (Code of Federal Regulations), “Standards for Universal Waste Management.”
DOE (U.S. Department of Energy), *Moab UMTRA Project Waste Management Plan* (DOE-EM/GJ1633).
UAC R315-16 (Utah Administrative Code), “Standards for Universal Waste Management.”